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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,855	05/10/2001	Raymond A. Berard	14060/198355(IRC289)	5678

23370 7590 07/12/2007  
JOHN S. PRATT, ESQ  
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ATLANTA, GA 30309

EXAMINER
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YOON, TAE H

ART UNIT	PAPER NUMBER
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1714

MAIL DATE	DELIVERY MODE
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07/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/852,855	<b>Applicant(s)</b> BERARD, RAYMOND A.	
	<b>Examiner</b> Tae H. Yoon	<b>Art Unit</b> 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 21-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 38 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is NEW MATTER rejection since the recited "a yield of 80 –100%" does not have support in originally filed specification. The table on page 9 shows a yield of 82%, but it does not support said 80%.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-38 are rejected under 35 U.S.C. 103(a) as obvious over Yang et al (US 6,036,726).

Yang et al disclose a process for recycling colored polyamide (nylon) material in abstract. Said process comprises the steps of (a) contacting solid colored polyamide (nylon) material with an organic solvent composition at a temperature effective to dissolve the polyamide (nylon) material, thereby forming a solution containing colorant

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and dissolved polyamide (nylon); (b) separating insoluble materials from dissolved polyamide (nylon) material; and (c) cooling the dissolved polyamide (nylon), thereby causing nylon to precipitate in claim 27.

The temperature for said dissolution is taught as 140-220°C at col. 7, line 1 and in claim 3 overlapping the instant temperature. Suitable pressures are taught as between about atmospheric pressure and about 300 psig at col. 7, lines 2-4. Use of an inert gas such as nitrogen or argon in order to obtain an elevated pressure is also taught at col. 7, lines 4-6. Tables 5-8 show 60-90wt.% of alcohol in water, and tables 6 and 7 show 100% dissolution of nylon fibers.

Examples of Yang et al show a mixture of water and alcohol, and example 10 shows that ethylene glycol was not a good solvent for nylon 6,6 (col. 12, lines 59-60). Also, example 10 uses one hour at a temperature from 154-163°C and a pressure of 250 psig.

Yang et al teach various residence times such as 0.5-20 minute, for solvating the colored nylon at col.7, lines 9-25. Thus, Yang et al also teach utilization of a combination of the pressure, temperature and the dissolution time

The instant claims recite "a pressure higher than an equilibrium vapour pressure of the alkanol-containing solvent at the elevated temperature", but claims do not specify how high that pressure would be. Thus, 0.001 psig higher than the equilibrium vapour pressure would meet the invention and such pressure change would constantly occur inherently in a pressure vessel since it is in a dynamic state (constant change of

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equilibrium vapour pressure to non-equilibrium vapour pressure back and forth), not a steady state.

It would have been obvious to one skilled in the art at the time of invention to utilize the instantly claimed temperature such as 154 °C or 140°C and pressure higher than 250 psig by introducing an inert gas in example 10 of Yang et al since Yang et al teach employing 140-220°C and 300 psig, and a higher pressure would yield a shorter dissolution time and since Yang et al teach various residence times such as 0.5-20 minute, and furthermore, choosing a temperature, pressure and dissolution time within the range disclosed by Yang et al is a *prima facie* obviousness absent showing otherwise

Claim 32 further recites that the pressure head yields a pressure higher than the equilibrium vapor pressure of a solvent over Yang et al. However, Yang et al teach employing a pressure vessel in order to get an elevated pressure, and thus a pressure vessel having a pressure head is an obvious modification since a solvent entering from a (pressure) head would have a higher contact with a nylon than that entering from the said or bottom of a pressure vessel.

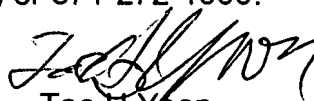
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tae H Yoon  
Primary Examiner  
Art Unit 1714

THY/July 3, 2007